- 4. [AMENDED] The method of claim 2 wherein the mutant does not comprise a wild-type *chico* gene.
- 5. [AMENDED] The method of claim 2 wherein the Drosophila mutant comprises one wild-type *chico* gene.
- 8. [AMENDED] The method of claim 2 wherein the Drosophila mutant comprises at least one *chico* mutation with lacking or reduced activity compared to wild-type *chico*.
- 10. [AMENDED] The method of claim 2 wherein the Drosophila lacks at least one *chico* gene.
- 12. [AMENDED] The method of claim 2 wherein the compound is a compound for the treatment of diabetes type 2.
- 13. [AMENDED] The method of claim 2 wherein the alteration of the body size and/or the cell size and/or the development time and/or the lipid level is detectable in the whole animal.
- 14. [AMENDED] The method of claim 2 wherein the alteration of the body size and/or the cell size and/or the development time and/or the lipid level is detectable in the head region only.

- 17. [AMENDED] The mutant of claim 15 that does not comprise a wild-type *chico* gene.
- 18. [AMENDED] The mutant of claim 15 that comprises one wild-type *chico* gene.

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- 21. [AMENDED] The mutant of claim 15 comprising at least one *chico* mutation with lacking or reduced activity compared to wild-type *chico*.
  - 23. [AMENDED] The mutant of claim 15 lacking at least one chico gene.
  - 25. [AMENDED] The mutant of claim 15 which is a fly mutant.
  - 26. [AMENDED] The mutant of claim 15 wherein at most one wild-type *chico* gene is found in the whole body of the insect.
  - 27. [AMENDED] The mutant of claim 15 wherein at most one wild-type *chico* gene is found in the head region of the insect only.
  - 28. [AMENDED] Use of an insect according to claim 15 as a means in screening compounds for modulating diseases.
  - 29. [AMENDED] Use of an insect according to claim 15 as a means for searching for mutations involved directly or indirectly in the insulin signaling pathway.

- 30. [AMENDED] Use according to claim 22 characterized in that the disease is diabetes type 2.
- 31. [AMENDED] A method for generating a mutant insect, characterized in that adult animals are treated with a mutation generating means under mutation generating conditions, that thus treated insects are crossed to wild-type or mutant insects and that viable offsprings with altered cell number, cell size, developmental time or lipid levels are cultivated under suitable conditions.

Please add the following claims:

- --32. The method of claim 31 wherein the adult animals are males.
- 33. The method of claim 31 wherein the treated insects are crossed with *chico* mutant insects.
  - 34. The Mutant of claim 25 which is a Drosophila mutant.--